MARINE CORPS

WARFIGHTING LABORATORY

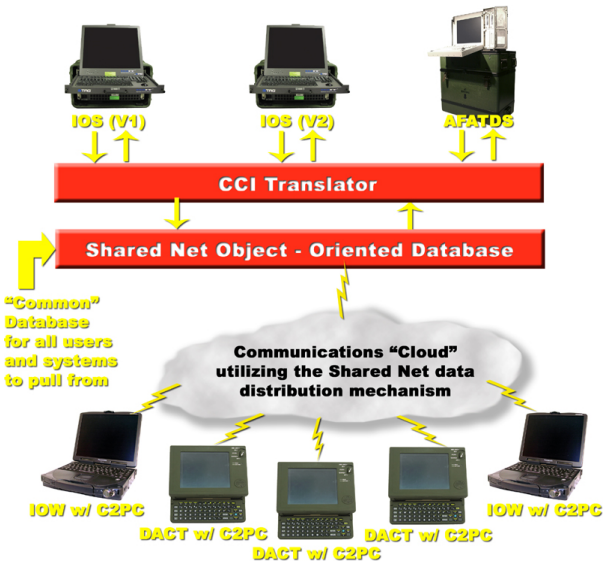
COMMAND AND CONTROL INTEGRATION

fact sheet

Command and Control Integration (CCI) software enables the synchronization of maneuver, intelligence and fire support information. This capability provides the basis for a reliable common tactical picture for tactical units at the infantry regiment level and below across existing and future communications architecture.

Background: Existing Marine Corps C4ISR architecture systems were not designed to present a consistent common tactical picture. Maneuver, intelligence and fire support applications are not synchronized and there is no common source of trusted battlefield information. Information available in combat operations centers is often inconsistent, suffers from dissimilar timing delays, and there is no uniform method to allocate network resources across the applications. The lack of a reliable common tactical picture that can be accessed by tactical units at the infantry regiment level and below, over the existing communications paths, is a significant shortcoming that CCI proposes to address.

Description: The Command and Control Integration is a software development project that capitalizes on the Marine Corps Warfighting Laboratory's (MCWL) command and control experimentation with adaptive command and control technology, and participation in the Office of Naval Research's Knowledge Superiority and Assurance Future Naval Capability (KSA FNC). Jointly funded by MCWL and the KSA FNC, the principal components of CCI include: an ontology providing an internal object model of all battlefield entities such as friendly and enemy assets, overlays, and operational events; a Shared Net Object Instance Store (SNOIS) and data distribution system that provides subscription-based object serving facilities; and the Command and Control Integration Translator (CCIT) to selected existing command and control software applications. During 2003, Command and Control



Personal Computer (C2PC), the user interface application, will be developed as a client to the SNOIS. A successful limited technical assessment (LTA) of the prototype software operating over current tactical radios was held in San Diego, CA during September 2002. The final demonstration for the transition products will be held in September 2003. This software will be adapted for use with the digital combat operations center and the Expeditionary Tactical Communications System, for experimentation during Sea Viking 04.

Deliverable Products: In accordance with the Technology Transition Agreement with Marine Corps Systems Command, MCWL will deliver CCI software segments, complying with the Joint Technical Architecture and the Common Operating Environment level 6 specifications, and corresponding technical documentation at the end of Fiscal Year 2003.

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